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1. Introduction and Summary

Cable systems were originally regulated through franchise regulation. A municipal authority (e.g., a city or township) would grant a cable company exclusive rights to operate within a defined area. The area of the franchise could be a township, a city, or in the case of a large metropolitan area, a part of the metropolitan area. The franchising authorities required bids from the prospective operators for an area. The bids were judged based on quality of service, quality of technology to be installed, number and type of channels offered, number of public access channels, the franchise fee and other factors. Franchise fees took a number of forms: a fixed annual amount, a share of cable revenue, or a specified amount per subscriber or homes passed.

Franchise regulation of cable systems generally was found not to be effective. Cable regulation varied widely among municipalities. Subscriber fees and channel offerings could be greatly different in adjoining cable systems. As a result of the failure of franchise regulation, the Federal Communications Commission (FCC) was given regulatory authority over cable systems in the Cable Act of 1984. Under the authority of this act, cable systems were effectively price deregulated in 1986 when the FCC determined that the cable industry did not require price regulation.

The Cable Television Consumer Protection and Competition Act of 1992 (Cable Act of 1992) has placed all cable television systems, judged by the FCC not to be subject to effective competition, back under the price regulatory jurisdiction of the FCC. The Commission proposes to allow cable operating systems the opportunity to justify rates higher than the benchmark rates based on cost of service, where cost of service is defined to be the sum of operating expenses, taxes, depreciation and allowable earnings including a fair rate of return on rate base. This is the type of cost of service rate regulatory framework currently in place for traditional utilities (electric, gas, telephone, water). The FCC proposes to employ as a measure of value of rate base the depreciated original cost of the tangible assets to the first person who devoted the

facilities to public service¹ which is how the FCC measures the rate base for telephone companies.² The Federal Energy Regulatory Commission (FERC) and the National Association of Regulatory Utility Commissioners (NARUC) include similar definitions applicable to electric, gas and water in their uniform systems of accounts. We note that there is no uniform system of accounts for cable television systems.

For reasons discussed below, in detail, we believe it is inappropriate for the FCC to use original cost as a measure of value in its regulatory framework for cable television companies. Original cost is not a measure of value readily available to cable television operators, nor is it a measure of value that has relevance to owners of cable television systems. Secondly, original cost regulation would amount to implicit confiscation of investor capital. There is ample historic precedence for not initially regulating on the basis of original cost of tangible assets only. There are numerous factors that should be considered and observed regarding important differences between cable companies and traditional utilities.

We begin below with a brief discussion of regulatory history. The purpose of this discussion is to demonstrate that the regulatory framework currently in place for the traditional regulated industries (electric, gas, water, and telephone) is the result of a long evolutionary process. The current regulatory framework was not imposed at the outset of regulation for these industries because such regulation would have been both impractical and unfair.

The key issue at the outset of regulation is the valuation of the rate base. In an unregulated environment, companies are sold at market value which is determined as the result of arms length negotiations between willing buyers and sellers. The vast

¹Presumably, the rate base will include amounts for cash working capital, materials and supplies, and the other traditional elements of rate base.

²Federal Communications Commission, Uniform Systems of Accounts, Class A and Class B Telephone Companies, effective January 1, 1936, Section 31.01-3(x).

majority of cable systems are not owned by their original builders and many have been sold several times. The value of the assets on the books of these systems typically reflects the amount paid to acquire the system less accumulated depreciation and amortization (i.e., less the recovery of the investments in tangible and intangible assets). At the outset of regulation for the traditional regulated industries, rate base was set equal to an estimate of fair value or replacement value. The net value of all assets of cable systems could be used to produce an approximation to replacement or fair value.³ However, the depreciated book value itself could serve as the initial value of the rate base. The depreciated value of assets on the books of the traditional regulated industries was not used at the outset of their regulation because of the suspect accounting and valuation practices employed by these industries prior to regulation. Such suspect practices are not an issue due to the scrutiny of the SEC and the IRS and the adherence to GAAP (generally accepted accounting principles); none of these safeguards were in place at the outset of regulation of the traditional regulated industries.

Therefore, given that a value of assets on the books of cable systems reflects their market value at the time of acquisition⁴ less accumulated depreciation and amortization, we believe that the FCC should set the initial value of the rate base equal to the depreciated book value of assets currently on the books of cable systems (i.e., the rate base should equal invested capital). The rate base for cable systems can then move to a depreciated original cost basis over a 10-year transition period. Tangible and intangible assets currently on the books can be fully depreciated and amortized,

³An estimate of replacement value would be obtained by increasing depreciated book value by inflation since the time the assets were acquired. For example, if the system were acquired in the first quarter of 1988, the depreciated book value could be multiplied by the ratio for the GDP price deflator as of the third quarter of 1993 to the GDP price deflator as of the first quarter of 1988 to produce a more accurate estimate of replacement value of the system's assets. Alternatively, a construction cost index for the cable industry could be developed.

⁴For the few systems that have never been sold, the value of assets on the books might be the depreciated original cost, or it could be a valuation determined by an independent appraiser in conjunction with a refinancing.

respectively, within the 10-year period.⁵ New assets acquired during this transition period would be entered at acquisition cost and depreciated. As a result, the rate base would equal the original depreciated cost of tangible assets at the end of the 10-year transition period. The proposed transition period to a depreciated original cost rate base for the cable systems is much shorter than the corresponding transition period for traditional utilities.

The Commission unfortunately creates the impression that the prices paid for cable systems were "too high" by referring to the amounts paid above depreciated original cost for these systems as "excess acquisition costs" (NPRM at 136)⁶ The view that the value of a company should equal the depreciated original cost of its tangible assets is unique to the traditional utility regulatory arena. Outside of this traditional utility regulatory arena, the value of a company equals today's market value of the company's tangible and intangible assets. The overall value of the company (i.e., the sum of the value of its tangible and intangible assets), in turn, equals the present value of the future net income that the company is expected to generate.

Outside of the regulatory arena, the market value assigned to a company typically is several times the book value of its assets (tangible and intangible) because the book value is the value at the time these assets were acquired and not their value today. For the S&P Industrial companies, the market-to-book ratio for common equity is 3.2.⁷ Industries that are competitive to the cable industry also have high book-to-market ratios for common equity. The broadcast industry (which is regulated by the FCC but is not subject to price regulation so it will be valued by the market as would be an unregulated

⁵Some assets will be fully depreciated at an earlier date. Conversely, some may have somewhat longer lives. However, the transition would be almost entirely completed at the end of 10 years.

⁶The Commission however, does say (NPRM at f.n. 40) that it does not "necessarily imply that the acquisition cost was 'excessive' or imprudent". (emphasis added)

⁷S&P, July 1993.

For the numerous reasons listed above, we recommend the the initial rate base include the value of assets on the books of the cable systems less accumulated depreciation and amortization.

Some of the assets used by cable systems to provide service also are used to provide non-cable service by the cable systems' parent companies. Such assets will have to be allocated between cable and non-cable uses. Assets devoted to providing cable service often serve multiple systems and/or multiple franchises. The Commission's suggestion to allocate shared rate base and operating expenses among cable systems/franchises based on number of subscribers is reasonable, but companies should be able to offer evidence in support of alternate allocation schemes.

The Commission recommends allocating the shared rate base and operating expenses of a system (or franchise) among the tiers based on relative channel counts within each tier. We believe it could be better for the default allocation approach to be based on a subscriber weighted channel count. The Commission's default recommendation discourages offering new channels that would be of interest to minority and other special interest groups. A default subscriber weighted channel count based allocation method does not discourage cable systems from offering services to these relatively small groups. Again, individual cable systems should have the option of offering evidence in support of alternative allocation schemes.

Given a rate base definition and a method for allocating that rate base and operating expenses to the various types of cable service (e.g., Tier 1, Tier 2, Premium, Pay-per-View, etc.), the market required rate of return on the rate base must be determined. We recommend defining a specific set of comparable groups. The financial data for the companies in these comparable groups would be used to estimate the cost of capital for the cable television industry. The comparable groups recommended are:

- A subset of the S&P Industrials with risk measures similar to those of the five cable companies evaluated by Value Line.
- A telecommunications group;
- A broadcast industry group; and
- An entertainment industry group.

We recommend that the Commission adopt specific criteria for selecting companies to include in each group. If the Commission adopts these groups and the criteria for including companies in them, then all analysts evaluating the cost of capital for the cable industry will be using a common database.

In terms of methodology, we recommend a comparable earnings approach. If the Commission has initially specified the groups of companies to be included in the analysis (e.g., has adopted the four groups we recommend), then the most common concern with the comparable earnings method will be avoided; namely, a "comparable" group can be defined to support any desired outcome. If the comparable groups are defined by the Commission based on similarity of measured risk and/or to include companies competing with cable systems for the consumers' dollar, then the comparables analysis cannot be tainted by disputes over comparable group definition.

We recommend analyzing both historical and expected future financial performance of the companies in the comparable groups to develop an estimate of the cost of capital for cable systems. If the companies included in the groups are limited to those in Value Line (which is not a significant constraint given that Value Line covers more stocks than any other similar service), Value Line can be relied upon for the historical and forecast financial data needed to perform the comparable earnings

analyses. Relying on Value Line forecasts of returns eliminates the need to develop and maintain models and has the advantage of analyst neutrality.

Finally, we recommend directly estimating both the after-tax cost of common equity as well as the pre-tax overall cost of capital. For the first approach, a hypothetical capital structure must be developed given the vast diversity of capital structures in the cable television industry. We recommend a 50/50 debt/equity structure. The results produced by the two estimation methods should be averaged to produce a final estimate.

We have applied the recommended methodology to the comparable groups. Our analyses produce a recommended pre-tax overall cost of capital for the cable television industry of 18.9 percent with a recommended acceptable range extending from 17.3 percent to 20.5 percent.

One must bear in mind that all that need be decided at this time by the Commission is whether existing subscriber fees can be justified on a cost of service basis. If these cost of service results support a higher than current subscriber fee, the Commission can determine an adjustment process during the upcoming year.

2. Implications Of Regulatory History For The Cable Television Industry

At the outset of commission regulation, nearly 100 years ago, the environment in which traditional utilities were regulated was very different than today. There was no Securities and Exchange Commission, depreciation accounting did not exist, there was no nationally-prescribed uniform system of accounts for any type of utility or other type of business enterprise, and there was no Internal Revenue Service. With no prescribed standards, the books and records of most utilities were suspect. The actual original cost of property was uncertain or unknown. Accordingly, it is important to recognize that in

the late 1800's and early 1900's, at the outset of price regulation for traditional utilities, neither original cost or book cost was not employed for rate base determination purposes. The book values were suspect and, in many instances, the original cost of property was neither known or readily determined. For example, there was a practice of the sale of one utility to another, often by a common holding company parent which most often resulted in increased book value. As a result of their legitimate concern regarding the validity of the values of assets of the utility's books, regulators initially employed a fair value rate base. The fair value measure took into account replacement or reproduction costs of the tangible assets among other factors. The overwhelming majority of state regulatory agencies employed a measure of value other than original cost for the best part of the first half of the 20th century.

Original cost became the prominent measure of value primarily subsequent to the famous Hope Natural Gas Company versus West Virginia Public Service Commission case in 1944. The Supreme Court held that it was not the method employed, but the end result reached which should be controlling in establishing the value of rate base. Up to that time, many utility commissions employed something other than original cost for the reasons previously cited. Subsequent to that time, most utility commissions increasingly employed an original cost measure of value for ratemaking purposes. Many companies were forced to and did make so-called original cost studies. It probably was not until the late 1950's or even into the 1960's that most traditional public utilities for ratemaking purposes had rates determined on the basis of a rate base measured at original cost. In short, the transition period, from the outset of rate regulation, for most traditional public utilities could be said to be several decades as a minimum.

The first effective form of regulation of traditional utilities was regulation through franchise agreements. This is also true of the cable television industry. During the early years of the cable industry, cable systems were price regulated principally by local governments pursuant to franchise agreements. The franchise is a grant by a civil jurisdiction or municipality permitting the franchisee the right to occupy streets and other

public rights of way with its equipment, and usually to be the sole provider of cable services. It may specify certain conditions -- such as maximum rates, quality of service, terms and conditions of service -- on the franchisee which are commonly prescribed by modern regulatory commissions. The agreement might set standards for the types of services to be rendered, rates for services, accounting methods, fees paid to municipal jurisdictions, and the method(s) of renewal.¹¹

From the late nineteenth century through World War I, franchise regulation prevailed for traditional public utilities. Local franchise regulation may have worked well when at that time technological limitations and relevant markets confined the areas served by utilities largely within the boundaries of the civil jurisdictions served. However, as technological developments were introduced, the practical market area served by utilities increased beyond the boundaries of a confined civil jurisdiction. It became practical and desirable for utilities to serve multiple civil jurisdictions. The expansion of service territories allowed realization of economies of scale and scope.¹² Cable television operators have, just as have operators of traditional utilities, taken advantage of economies and expanded beyond a single franchise. According to the 1993 edition of Cable Factbook, cable operating systems serving a single civil jurisdiction are in a distinct minority.

Over the long run, regulation through franchise agreements proved to be impractical and commission regulation evolved. Single state regulatory commissions could ordinarily administer the regulatory function more efficiently and cost effectively than individual civil jurisdictions. Statewide regulation solved many of the deficiencies of franchise regulation. In 1907, New York, Georgia and Wisconsin enacted legislation establishing utility regulatory commissions with broad power over rates, accounting

¹¹Paul J. Garfield and Wallace F. Lovejoy, Public Utility Economics, Prentice-Hall, Inc., Englewood Cliffs, N.J., 1964, pp. 28-29.

¹²Charles F. Phillips, Jr., The Regulation of Public Utilities: Theory and Practice, Public Utilities Reports, Inc., Arlington, Va., 1988, pp. 120-121.

services, obligations, financings, and other related matters. By 1930 all but one state had established commissions with broad powers to regulate utilities.

The modern phase of federal utility regulation began in 1910 with the regulation of interstate telephone and telegraph companies by the Interstate Commerce Commission.¹³ Today, traditional utilities are rate regulated by the Federal Energy Regulatory Commission (FERC), the FCC, and state regulatory commissions in all fifty states, the District of Columbia, the U.S. Virgin Islands and Puerto Rico. Interstate natural gas pipelines, product pipelines and electric utilities are price regulated by the FERC. The FCC has regulatory authority over long distance telephone service and, pursuant to the Cable Act of 1992, cable television systems. Moreover, natural gas distribution, local telephone service, electric and water utilities are price regulated by state commissions.

A cornerstone of commission regulation of traditional public utilities is the establishment of rates incorporating recovery of all expenses of providing service and an opportunity to earn a return in order to pay for the use of capital provided by investors. A fair return is the product of multiplying a fair rate of return by a measure of value, the rate base. The rate base is composed of assets supplied by investors. Today the composition of the assets employed by traditional utilities is overwhelmingly long-lived, tangible assets. With rare exceptions, the measure of rate base value is net original cost (gross plant cost less accumulated depreciation provided by investors). The FCC has proposed that the rate base for cable television systems be defined in terms of original cost (i.e., the cost of those assets to the owner first devoting them to public service).

In spite of data deficiencies, the determination of rate base has always been an important consideration in the era of commission regulation. From 1898 when the U.S.

¹³Garfield & Lovejoy, op.cit., pp. 32-37.

Supreme Court handed down the decision in *Smyth v. Ames* to the early 1920s, the concept of a "fair value" rate base predominated. The Court defined fair value as:

The original cost of construction, the amount expended in permanent improvements, the amount and market value of its bonds and stock, the present as compared with the original cost of construction, the probable earning capacity of the property under particular rates prescribed by statute, and the sum required to meet operating expenses are all matters for consideration and are to be given such weight as may be just and right in each case.¹⁴

During the "fair value" era, reproduction cost was given predominant influence in determining rate base. Reproduction cost is the cost of duplicating existing plant and equipment (technological changes are not taken into consideration) at current prices. Thus, this method of rate base valuation is extremely sensitive to price levels. During periods of price decline, the rate base decreases and, during periods of price increases, the rate base increases. However, in real terms, replacement costs keep constant the value of rate base, an original cost rate base decreases in real value as prices increase. It should be kept in mind that prices generally declined between 1865 and 1897. As a result, when the *Smyth v. Ames* decision was rendered, the rate base value determined using reproduction cost was typically less than the value determined using original cost. The price level generally increased from 1897 to 1923 with sharp increases occurring between 1915 and 1920. In 1923, in the *State of Missouri ex rel. Southwestern Bell Telephone Company v. Public Service Commission of Missouri* (262 U.S. 276), a majority of the Supreme Court criticized the Commission because it "undertook to value the property without according any weight to the greatly enhanced costs... An honest and intelligent forecast of probable future values made upon a view of all of the relevant circumstances is essential." The universal interpretation of this decision was that the

¹⁴*Smyth v. Ames*, 169 U.S. 466 (1898).

Court required a finding of reproduction cost at current prices. "Fair value" now assumed forward-looking aspects.¹⁵ The value of utility plant using reproduction cost was higher than the value based on original cost in 1923. Throughout this period of rising prices, original cost approach gained favor because it produced a declining real rate base value.

"Fair value" as a measure of value eventually gave way to original cost. Original cost was one of the factors to be weighed in determining of "fair value" in the *Smyth v. Ames* decision. In the *Hope* decision of 1944, the Court upheld the West Virginia Commission in finding original cost as the measure of value of the rate base.¹⁶ The Court found that the results of Commission findings, rather than the method used to obtain the results, are relevant in determining just and reasonable rates. Subsequent to the *Hope* decision, original cost over time became and remains today the predominant standard or measure of rate base valuation for most traditional utilities in most states and federal jurisdictions.

In theory, original cost valuation can be achieved through a study of either the assets or liabilities side of the balance sheet. Under proper conditions there should be no difference between these two measures of investments. However, the liabilities side of the balance sheet proved to be a deficient measure of original cost. The par value of securities is a component of investor-supplied capital. However, prior to the strict regulation of securities, the par value of securities proved to be an unreliable measure of investment because of the practice of distributing stock as a bonus to encourage the purchase of bonds. Thus, par value tended to represent investor expectations rather than original investment. For this reason, utility rate base valuation has concentrated on the asset side of the balance sheet.

¹⁵Martin G. Glaeser, Public Utilities in American Capitalism, The Macmillan Co., New York, 1957, pp. 315-317.

¹⁶*Federal Power Commission v. Hope Natural Gas Co.*, 320 U.S. 59 (1944).

The asset side of the balance sheet also can but not always be a reliable measure of original cost value. Original cost valuation of rate base requires record-keeping such that the original cost of property to the initial investor is traceable. Such records are not always available and have not always been available with respect to traditional utilities. In order to facilitate compliance with uniform system of accounts, traditional utilities began undertaking original cost studies because original cost was not available. Original cost studies for some utilities had not been completed as late as the 1960s. During this interim period, many state commissions continued to use a rate base valued at other than original cost. In the late 1960s, A.J.G. Priest, a regulatory attorney and Scholar in Residence at the University of Virginia Law School, identified twenty state jurisdictions¹⁷ which he described as "fair value" or which depart in some measure from original cost.¹⁸ More than a half century elapsed from the beginning of commission regulation, and many commissions were still employing measures of value for rate base other than original cost.

In the cable television industry, the tracing of investments by the initial investor devoting the property to public service is also not likely to be possible. Based on a recent survey,¹⁹ there is reason to believe that as many as ninety percent or more of the approximately 11,000 cable television systems currently in operation were initially constructed by someone other than the present owner.

¹⁷These state jurisdictions were Alaska, Alabama, Arizona, Delaware, Illinois, Indiana, Iowa, Maryland, Minnesota, Missouri, Montana, Nebraska, New Jersey, New Mexico, New York, North Carolina, Ohio, Oklahoma, Pennsylvania, and Texas.

¹⁸A.J.G. Priest, Principles of Utility Regulation: Theory and Application, The Muncie Company, Charlottesville, 1969, pp. 156-166.

¹⁹In July 1993 AUS Consultants surveyed operators of 441 cable television operating systems to identify the measure each system uses to record assets on their books and to determine whether the current operator constructed the system or purchased the system from a previous operator. Of the 241 systems that responded, 224 or 92.9%, of which 222 or 99.1% allocated some portion of the purchase price to tangible asset accounts.

A recent preliminary survey indicates that over 90 percent of the cable systems in the country are currently owned and operated by other than the owner who built the system in the first place. While all cable companies have employed Generally-Accepted Accounting Principals (GAAP), they for the most part have not adhered to public utility financial reporting and do not maintain traditional public utility continuing property records. Therefore, they do not know the original cost of the property now used to render cable television service. Most cable systems were acquired at a price resulting from arm's length bargaining. In many instances the assets recorded on the books for systems originally constructed by other than the present owner is the sum of an appraised value net of depreciation of the tangible assets and the value of intangible assets. Intangible assets include the value of the franchise, customer lists, a trained work force, operating accounting systems, and the avoidance of early year losses. It would be unreasonable to assume that any present owner, at the time they acquired the system, had any reason to believe that at some future point in time traditional public utility rate base rate of return regulation, and in particular original cost regulation, would be employed. In short, to in effect roll back the clock, and now presume that the value of the system was other than the amount paid, would result in confiscation of property without due process.

The fact that prices paid for cable television systems were in excess of original cost of tangible assets as traditionally defined for utilities is not evidence that the prices paid were excessive. Even today, the price of stock, for traditional utilities, notwithstanding original cost regulation, is well in excess of book value. For example, telephone company stock sells at about 2.5 times, electric companies about 1.7 times, gas distribution companies about 1.7 times, and water companies about 1.4 times book value of common equity.²⁰ There are a variety of potential explanations of why investors are willing to pay more for common stock than book or original cost of traditional utilities. Particularly with respect to telephone companies, there is a

²⁰C.A. Turner Utility Reports, August 1993.

movement from a monopoly to a competitive environment, and the end result is assets now recorded on the books at original cost potentially have a greater value where the price of service is established in the marketplace rather than by a regulatory body. As an indication of the greater value accorded assets employed in the non-regulatory areas, the S&P Industrials stocks currently sell at 3.2 times book common equity.²¹

Accordingly, the value of the assets recorded on the books is the current value at the time of purchase derived through arm's length negotiation and not the original cost to the first person devoting the facilities to public service. This is not a failure of accounting standards or the result of any bookkeeping malfeasance. Cable television operators, who have maintained their books and records in strict adherence to GAAP, are generally unable to trace the original cost of assets. For them tracing or reconstruction of original cost of records would be a very time consuming and costly process. Even in cases where records exist to allow the depreciated original cost of tangible assets to be identified, this measure almost certainly would grossly understate the amount of capital that has been invested in the cable system by its owner.

The process of public utility valuation for traditional utilities is well-established before the courts and regulatory commissions. There are clear-cut guidelines and uniform systems of accounts through which value may be measured. There is no such thorough legal and regulatory scrutiny of the elements of value for non-utility property. The value of non-utility property -- cable television property was considered non-utility property prior to the enactment of the Cable Act of 1992 -- is not a function of original cost. Its value varies with the time, place, conditions and purpose for which the property is valued. The most common and valid basis for assessing the value of non-utility property is the present worth of future-expected earnings. Such a basis would be

²¹S&P, July 1993.

circular with respect to utility properties where the expected earnings are a function of the measure of value itself.²² However, it is not circular in a non-utility environment.

Properties grow, decline, or otherwise change in character and value. Furthermore, properties change ownership. Ordinarily, growth is accounted for by increased investment which should be accounted for in the proper accounts. Properties diminish in value through losses and abandonments which should be recorded as retirements. Properties also change in value after physical and/or technological depreciation have warranted their replacement, the significance of which for rate base valuation purposes is the difference in cost from the original property. While the original owner of non-utility property may scrupulously record the appropriate debits and credits associated with changes in investment, such records are of little interest to a purchaser of property who values the property based on the expected income the property will generate, often without consideration to original construction cost. The purchasing entity often places on its books and records a valuation of property commensurate with a current value and earnings power of the assets. A non-utility has no reason to maintain records of the original cost of property which has changed ownership.²³

Even if a cable system or other non-utility is able to identify original cost, it is unlikely that the original cost will be in accordance with original cost as defined for traditional utilities. Utility and non-utility accounting practices differ. For example, there are certain expenditures that non-utilities would consider operating expenses that a utility would capitalize. An example is the painting of a water tower. A non-utility may fully expense the cost of painting at the time a tank was painted. For a rate regulated water utility, the cost of painting would be amortized over the period until the next painting.

²²Anson Marston, Robley Winfrey and Jean C. Hempstead, Engineering Valuation and Depreciation, Iowa State University Press, Ia., 1953, pp. 33-38.

²³Glaeser, op. cit., pp. 280-281.

At this time it would be impractical to value cable television property at original cost for ratemaking purposes. It is a measure of value not readily available to cable system operators. The previously-referred to survey indicates that over ninety percent of the systems were purchased. It can be safely assumed that most of these systems are unable to reconstruct original cost (a number of respondents stated that the books and records of predecessor companies are not always available). All of the surveyed systems obtained through purchases allocated some part of the purchase price to tangible assets at current, rather than an original cost measure of value because the original cost of property is unknown. Adoption of an original cost valuation standard would result in a regulatory environment precluding many of the regulated companies from justifying their rates because many cable television system operators lack the needed information. Those companies lacking original cost data would either have to forego the rate justification for at least several years because it would take that long to conduct original cost studies. Even then, such studies could be inconclusive due to the absolute lack of records in some, or perhaps many instances. A lack of records will require the identification of original cost by property class. To say the least, such studies would obviously be expensive and there is no direct provision of recovery of such cost under the FCC's proposed regulatory framework. As will be discussed later, there is a better, more practical, less costly policy which would lead to the books and records of cable companies being stated on an original cost measure of value after a transition period.

In regulatory history, the lack of records supporting original cost is not a phenomenon unique to the cable television industry. During the years preceding and immediately following World War I, the books and records of all business enterprises were so incomplete that reliable data for obtaining original cost could not be obtained. The determination of original cost was hampered by inadequate or non-existent records particularly for those utilities which were sold. Just as has been observed for cable systems, amid all of the property transactions, traditional utilities, particularly those

properties having a long complex history, did not account for costs in accordance with the initial investment.²⁴

Public utilities today are known for exemplary record keeping with respect to costs. This was not always the case. In addition to the general lack of reliable bookkeeping records by industrial concerns in the early years of the twentieth century, there were numerous transactions involving utility mergers and consolidations. With consolidations, it was common to write up the costs of predecessor companies assets reflective of current value. Sometimes these write-ups reflected mergers in value of property and capitalization of economies realized in combination. However, sometimes particularly during the 1920s when securities were totally unregulated, these transactions in the absence of arm's length bargaining involved excessive write-ups and stock watering which resulted in inflated levels of assets and capitalization. In some instances, these abuses were exacerbated by falsification of accounts. The result was that utility books and records were of little use to regulators for they showed only the cost of property to the current owner and reflected a questionable measure of value.²⁵ Such abuses are no longer possible given the ongoing oversight provided by the SEC and IRS.

Traditional utilities have established a set of continuous property records recording a running account of the original cost of all property. The records are kept in accordance with uniform systems of accounts prescribed by state and federal regulatory commissions. For purposes of determining the undepreciated plant component of rate base, it is universally accepted. Furthermore, it should be noted that use of a uniform system of accounts does not limit the utility's rate base claim to original cost. The records are used as a starting point for claims of value other than and in addition to

²⁴Marston, Winfrey and Hempstead, op. cit., p.26; Martin T. Farris and Roy J. Sampson, Public Utilities: Regulation, Management and Ownership, Houghton Mifflin Co., Boston, 1973, p.82.

²⁵Garfield & Lovejoy, op. cit., pp. 87-89, 438-440.

original cost.²⁶ Uniform systems of accounts are benchmarks allowing data among utilities to be compared by regulators and investors on a consistent basis.

The adoption of uniform systems of accounts facilitated the adoption of original cost rate bases. As a reaction to the excessive utility write-ups and other financial abuses of the 1920s, Congress in 1928 directed the FTC to conduct an investigation in which a number of accounting and financial misdeeds were documented. As a direct result of this investigation, a number of regulatory Acts²⁷ were passed by Congress. Included in the legislation was broad authority for federal regulatory agencies to prescribe uniform systems of accounts.

The transition to original cost ratemaking for traditional utilities was quite time consuming. In 1937 the original cost principle as embodied in the uniform system of accounts was put into effect by the Federal Power Commission (FPC) for jurisdictional electric utilities. It allowed a period of two years for electric companies to prepare a reclassification of accounts and an original cost study, and thereafter granted extensions, as required. It was not until 1950 that the FPC announced the completion of the reclassification and original cost standard for electric utilities under its jurisdiction.²⁸ Original cost studies for utilities under state jurisdictions were not completed until the 1960s.

3. Transition To Original Cost Ratemaking For Cable Systems

We recommend that the FCC, in moving to original cost ratemaking for cable television systems, do so over a period of about 10 years. In any event, movement

²⁶Francis X. Welch, *Cases and Text on Public Utility Regulation*, Public Utility Reports, Inc., Washington, 1961, pp. 353-554.

²⁷The Federal Communications Act of 1934, the Federal Power Act of 1935, and the Natural Gas Act of 1938.

²⁸Garfield & Lovejoy, pp. 87-94.

toward original cost ratemaking cannot realistically begin until a uniform system of accounts is adopted specifying accounting standards. Otherwise, original cost can mean different things dependent upon the system. The general discussion in this section is supplemented by a more detailed discussion in Section 7 below.

At the beginning point of cable TV regulation, it would be impractical to use original cost as a measure of a cable system's value because the original cost of tangible assets is not a measure of value relevant to current owners of cable TV systems who purchased systems. Capital employed is typically not equal to the sum of tangible assets. Generally, cable systems were purchased at a price greater than the original cost of tangible assets and rightly so. As discussed below, the value of a business, as a going concern, is greater than the value of its tangible property alone. Going concern value includes both tangible and intangible assets. The going concern value for intangibles in a cable system include the value of the subscriber list, the franchise value, copyright/patent value, trademark value, and avoided start-up costs and predictably, several years of early year losses. In original cost rate base valuation of utilities, the only intangible asset allowed is the amounts actually paid by the original owner for the franchise. Other intangibles are of great importance to the purchasers of cable television systems.

We propose that the FCC's regulatory framework for cable television systems begin with booked costs of assets including both tangible and intangible assets. There should be a distinction between systems which have changed owners and those which have not. The book value should be effective as of the date of adoption of the FCC's chosen regulatory framework. The book value of cable television systems' tangible assets may include the current value of those assets as booked by the cable television system. Any remainder should be considered an intangible asset upon which earnings are allowed. There would then be a transition period after which cable TV systems would be regulated totally on original cost. It would probably last approximately 10 years which is a very short time period relative to the amount 50-year transition period

We believe that the FCC does not want to place into effect a regulatory framework which would jeopardize the financial integrity the industry. We recommend that the FCC should adopt a procedure which is easy to apply, equitable, and preserves the financial viability of the industry. There should be a transitional period of a relatively short duration when compared to the transition period for traditional utilities when this moved from other-than-original cost rate making to original cost rate making. We believe that our recommendation of a transition period meets all of the criteria described.

There is more recent precedent for not at the outset regulating on the basis of original cost; namely, the oil pipeline industry. Up until approximately 1984, the oil pipeline industry was regulated by the ICC who used reproduction costs as a measure of rate base value. In 1984 oil pipeline price regulation was switched by congressional action to the FERC. The FERC adopted a methodology recognizing in part replacement costs at the outset, but phased in original cost over the life of the property in existence at the beginning point of FERC regulation.²⁹ Moreover, there is also relatively recent precedent for recognizing earlier losses and establishing the rate base for rate making purposes. For Comsat,³⁰ the Federal Communications Commission did indeed recognize early year losses, undoubtedly out of necessity, in fairness to investors, and to allow the opportunity for financial viability.

Those systems which were purchased by the current owner may have assigned a portion of the purchase price to tangible assets in accordance with the current value of those assets. Then again, it may not have made this assignment. All of the excess of the purchase price over the previous owner's book costs may have been assigned to intangible assets. In either eventuality, the book value of assets, both tangible and intangible, which were purchased should be the value of its rate base.

²⁹FERC 154B.

³⁰Communications Satellite Corp., 56 F.C.C.2D 1101, 1138-39, 1184 (1975).

The regulatory framework we propose for cable television systems differs from that used for traditional utilities. There are three reasons all pertaining to intrinsic differences between cable television systems and traditional utilities why this is equitable. First, more than ninety percent of traditional utilities' assets are composed of tangible properties. The substantial investment in cable systems includes a significant percentage of intangible assets.

A second difference is that early years' losses do not occur with traditional utilities. Traditional utility services are considered necessities, hence from the day they begin service, they serve nearly 100 percent of the market available to them. This is not true for a cable television system which must develop its market. Three to four years of early losses is the norm for a new system. Even after several years a typical mature cable system may serve only approximately 60 percent of its market although many achieve an ultimate penetration rate above 70 percent. In short, the investor must invest in more than bricks and mortar at the outset to create a viable enterprise.

Third, as previously discussed, unlike traditional utilities, there is no uniform system of accounts for cable systems. Without a utility-type accounting system original costs may vary from system to system and from the original cost on the books of traditional utilities.

When cable television systems are sold there appears to be a premium paid over the book value of assets purchased. However, when earlier losses, start up costs, and money costs incurred during the construction period typically were never capitalized by the cable companies. As a result, the seller realizes less of gain than what appears to be the case on the surface. Further, the buyer is simply paying for the ability to avoid their early period losses and start-up costs including the cost of obtaining a franchise, hiring and training of personnel, establishing books and records, establishing systems and procedures, etc.

The use of book costs in determining rate base at the beginning of regulation should be contingent upon those costs being prudently incurred. A presumption of prudence can be made provided that the purchasing cable system can attest that it has negotiated with the prior owners at arm's length. An arm's length transaction should reflect current market conditions commensurate with the earnings expectations and other determinants of value of the purchaser.³¹

In traditional utility regulation, going concern value is not allowed as a component of the rate base. Going concern value reflects the fact that the purchased enterprise is an operational and functioning business which had incurred costs and operating deficits to develop a market and establish its business organization.³² This is a major reason purchasers are willing to acquire systems for prices greater than the value of tangible assets. Non-utility valuation recognizes the value of intangibles as do the Internal Revenue Service and the Securities and Exchange Commission.

4. Most Cable Systems Are Not Owned By Their Original Developer

The regulatory framework described above will work well for systems that have changed owners. However, it leaves systems owned by the original builder at a disadvantage in that their book costs of assets, both tangible and intangible, do not reflect current market value. Older systems still held by their original owners are apt to have no rate base. For these systems, one could consider using the operating ratio (OR) approach. The OR approach has been used by the ICC and by several state regulatory commissions when the rate base was essentially non-existent (i.e., fully depreciated) or when measuring the rate base was intractable.

³¹Alternatively, a value would have been established by an independent appraisal. If no such appraisal was made, an independent appraisal could be prepared today to estimate the system's value at the time of acquisition.

³²Garfield and Lovejoy, *op.cit.*, pp. 85-86.